

Supplemental Material

Table S1. Characteristics of Participants by Job Strain Category in WHI-OS, 1993 – 2013 (n= 80,825).

Characteristics	Job Strain			
	Low (n=19,411)	Active (n=25,285)	Passive (17,032)	High (19,097)
	Mean (SD)/%	Mean (SD)/%	Mean (SD)/%	Mean (SD)/%
Age	62.9(7.4)	62.9 (7.3)	64.2 (7.1)	64.0 (7.3)
Race/Ethnicity				
White *	87.0	85.6	81.0	87.6
Black or African American	6.4	7.7	8.8	5.0
Hispanic/Latino	2.6	2.3	4.8	2.9
American Indian or Alaskan Native	0.4	0.3	0.6	0.3
Asian or Pacific Islander	2.5	2.9	3.3	3.0
Other	0.9	1.0	1.3	1.0
Missing	0.2	0.2	0.2	0.2
Education				
High school diploma or Less than High school	10.0	6.7	41.0	26.9
More than high school diploma	89.4	92.5	58.2	72.4
Missing	0.6	0.8	0.8	0.7

Income

Less than \$35,000	26.7	25.2	52.6	40.1
\$35,000 to \$49,999	18.8	20.3	17.0	19.7
\$50,000 to \$74,999	21.9	23.0	13.2	17.9
\$75,000 or Above	28.6	27.7	13.0	17.9
Missing	4.0	3.8	4.2	4.4
Retirement Status	45.0	51.4	50.7	51.5
Job Tenure	14.5 (10.9)	16.9 (11.4)	11.4 (10.1)	12.5 (10.3)
Stressful life events	3.2 (3.1)	3.1(3.0)	3.6 (3.4)	3.2 (3.1)
Social strain	6.4 (2.4)	6.4 (2.4)	6.7 (2.7)	6.4 (2.4)
Smoking				
None	49.1	49.3	52.6	50.8
Former	44.5	44.0	39.1	41.8
Current Smoker	5.2	5.6	7.2	6.3
Missing	1.2	1.1	1.1	1.1
Alcohol Consumption (servings/week)	3.9 (1.5)	3.8 (1.5)	3.4 (1.6)	3.7 (1.6)

Depression Symptoms	0.04 (0.12)	0.03 (0.11)	0.05 (0.15)	0.04 (0.13)
BMI [†]	26.7 (5.6)	26.9 (5.7)	28.0 (6.2)	27.1 (5.7)
LTPA [‡]	15.0 (14.8)	14.7 (14.6)	11.9 (13.7)	12.9 (13.7)
Diabetes (treated)	3.0	3.2	5.2	3.3
Hypertension (treated)	20.9	23.4	27.8	24.8
High Cholesterol	12.4	13.1	15.5	14.6

BMI, body mass index; LTPA, leisure-time physical activity; SD, standard deviation; MET, metabolic equivalent; WHI-OS, Women's Health

Initiative-Observational Study

^a Does not include Hispanic origin

^b Weight (kg)/height (m)²

^c Total energy expend from recreational physical activity (MET-hours/week)

Table S2. Characteristics of Participants with Complete and Missing Data in WHI-OS.

Characteristics	Complete Data	Incomplete Data
	n=72,013	n=8,812
	Mean(SD)/%	Mean(SD)/%
Age	63.3 (7.3)	64.2 (7.3)
Race/Ethnicity		
White ^a	86	83.3
Black or African American	6.8	8.9
Hispanic/Latino	3	4
American Indian or Alaskan Native	0.3	0.5
Asian or Pacific Islander	2.9	2
Other	1	1.3
Education		
High school diploma or Less than High school	19.4	21.9
More than high school diploma	80.6	78.1

Income		
Less than \$35,000	37	40.8
\$35,000 to \$49,999	20.6	18.5
\$50,000 to \$74,999	20.1	19
\$75,000 or Above	22.3	21.7
Retirement	51	53.1
Current Smoker	6.1	5.9
Alcohol Use		
None	28.4	29.3
≤7 drinks per week	58.5	57.6
>7 drinks per week	13.1	13.1
Depression Symptoms	0.04 (0.13)	0.04 (0.13)
BMI ^b	27.1 (5.8)	27.1 (6.0)
LTPA ^c	13.8 (14.3)	12.9 (14.7)
Diabetes (treated)	3.6	3.9
Hypertension (treated)	24.4	24.9

High Cholesterol

14

15.1

BMI, body mass index; LTPA, leisure-time physical activity; SD, standard deviation; MET, metabolic equivalent; WHI-OS, Women's Health

Initiative-Observational Study

^a Does not include Hispanic origin

^b Weight (kg)/height (m)²

^c Total energy expend from recreational physical activity (MET-hours/week)

Table S3. Hazard Ratios for Associations of Job Strain, Stressful Life Events and Social Strain Categories with Incident Coronary Heart Disease in Women’s Health Initiative – Observational Study, 1993 – 2013 (Women with completed data, n= 72,013).

Stress Domain	Model 1	Model 2	Model 3	Model 4
	HR (95% CI)	HR (95% CI)	HR (95% CI)	HR (95% CI)
Job Demand*	0.92 (0.86,0.98)	0.97 (0.91,1.04)	0.97 (0.91,1.04)	0.96 (0.90,1.02)
Job Control*	0.85 (0.80,0.89)	0.86 (0.82,0.91)	0.98 (0.92,1.05)	0.98 (0.92,1.04)
Job Strain				
Low Strain	1.00(Ref)	1.00 (Ref)	1.00 (Ref)	1.00 (Ref)
Active	0.97 (0.88,1.07)	0.97 (0.88,1.07)	0.96 (0.87,1.05)	0.95 (0.86,1.05)
Passive	1.26 (1.15, 1.40)	1.25 (1.13, 1.38)	1.02 (0.92,1.14)	1.02 (0.91,1.14)
High Strain	1.12 (1.02,1.23)	1.12 (1.01,1.23)	0.99 (0.89,1.10)	1.02 (0.91,1.13)
Life Event				
Low	1.00(Ref)	1.00 (Ref)	1.00 (Ref)	1.00 (Ref)
Medium_Low	1.00 (0.91,1.10)	0.99 (0.90,1.09)	0.98 (0.88,1.08)	0.96 (0.87,1.06)
Medium_High	1.15 (1.05,1.27)	1.13 (1.02,1.25)	1.10 (1.00,1.22)	1.06 (0.96,1.18)

High	1.27 (1.15,1.39)	1.21 (1.10,1.34)	1.13 (1.02,1.25)	1.04 (0.94,1.15)
Social Strain				
Low	1.00(Ref)	1.00 (Ref)	1.00 (Ref)	1.00 (Ref)
Medium	1.04 (0.96,1.13)	1.03 (0.94,1.12)	1.02 (0.94,1.12)	0.99 (0.91,1.08)
High	1.18 (1.09,1.29)	1.12 (1.03,1.22)	1.09 (1.00,1.19)	1.00 (0.92,1.09)

CI, confidence interval; HR, hazard ratio; Ref, reference; BMI, body mass index; LTPA, leisure-time physical activity; WHI-OS,

Women's Health Initiative-Observational Study

Model 1: Age

Model 2: Age and other domains of stress

Model 3: Age, race/ethnicity, income, education, job tenure and other domains of stress

Model 4: Age, race/ethnicity, income, education, job tenure, depression symptoms, smoking, alcohol, LTPA, BMI, hypertension, cholesterol, diabetes, and other domains of stress

*: Model 2-4 adjusted for continuous job demand/job control, other two domains of stress and corresponding covariates mentioned above.

Table S4. Hazard Ratios for Associations of Job Strain, Stressful Life Events and Social Strain Categories with Incident Coronary Heart Disease by Working Status in Women’s Health Initiative – Observational Study, 1993 – 2013 (n= 80,825).

Stress Domain	Current Workers				All Workers (Current and Retired)			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
	HR (95% CI)	HR (95% CI)	HR (95% CI)	HR (95% CI)				
Job	0.90	0.97	0.98	0.96	0.92	0.97	0.98	0.96
Demand*	(0.81,0.99)	(0.92,1.04)	(0.92,1.04)	(0.91,1.02)	(0.86,0.97)	(0.92,1.04)	(0.92,1.04)	(0.91,1.02)
Job Control*	0.81 (0.74,0.89)	0.86 (0.81,0.90)	0.98 (0.93,1.04)	0.97 (0.92,1.03)	0.84 (0.80,0.89)	0.86 (0.81,0.90)	0.98 (0.92,1.05)	0.97 (0.92,1.03)
Job Strain								
Low Strain	1.00(Ref)	1.00 (Ref)	1.00 (Ref)	1.00 (Ref)	1.00(Ref)	1.00 (Ref)	1.00 (Ref)	1.00 (Ref)
Active	1.02 (0.87,1.20)	0.96 (0.88,1.06)	0.96 (0.88,1.05)	0.93 (0.85,1.02)	0.96 (0.88,1.05)	0.96 (0.88,1.06)	0.96 (0.87,1.05)	0.93 (0.88,1.02)

Passive	1.46	1.24	1.01	1.00	1.25	1.24	1.01	1.00
	(1.24,1.72)	(1.13,1.36)	(0.91,1.12)	(0.90,1.10)	(1.14,1.38)	(1.13,1.36)	(0.91,1.12)	(0.90,1.11)
High	1.12	1.13	1.00	1.00	1.13	1.13	1.00	1.01
	(0.95,1.32)	(1.03,1.24)	(0.91,1.10)	(0.91,1.10)	(1.03,1.24)	(1.03,1.24)	(0.91,1.11)	(0.91,1.11)
Life Event								
Low	1.00(Ref)	1.00 (Ref)	1.00 (Ref)	1.00 (Ref)	1.00(Ref)	1.00 (Ref)	1.00 (Ref)	1.00 (Ref)
	0.97	0.98	0.97	0.95	0.99	0.98	0.97	0.95
Medium_	(0.82,1.16)	(0.90,1.08)	(0.89,1.07)	(0.87,1.04)	(0.91,1.09)	(0.90,1.08)	(0.89,1.07)	(0.87,1.04)
	1.21	1.10	1.08	1.04	1.13	1.10	1.10	1.04
High	(1.02,1.44)	(1.00,1.21)	(0.98,1.18)	(0.95,1.14)	(1.03,1.24)	(1.00,1.21)	(0.98,1.18)	(0.94,1.14)
	1.38	1.20	1.12	1.02	1.25	1.20	1.12	1.02
High	(1.17,1.62)	(1.09,1.31)	(1.02,1.23)	(0.92,1.12)	(1.14,1.37)	(1.09,1.31)	(1.02,1.23)	(0.93,1.12)
	Social Strain							
Low	1.00(Ref)	1.00 (Ref)	1.00 (Ref)	1.00 (Ref)	1.00(Ref)	1.00 (Ref)	1.00 (Ref)	1.00 (Ref)
	1.09	1.02	1.03	0.99	1.04	1.02	1.03	0.99
Medium	(0.94,1.27)	(0.94,1.11)	(0.95,1.11)	(0.91,1.07)	(0.96,1.12)	(0.94,1.11)	(0.95,1.11)	(0.91,1.07)

High	1.21 (1.05,1.40)	1.12 (1.04,1.22)	1.09 (1.01,1.18)	0.99 (0.92,1.08)	1.18 (1.09,1.27)	1.12 (1.04,1.22)	1.09 (1.01,1.18)	1.00 (0.92,1.08)
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Women's Health Initiative-Observational Study

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Model 4: Age, race/ethnicity, income, education, job tenure, depression symptoms, smoking, alcohol, LTPA, BMI, hypertension, cholesterol, diabetes and other domains of stress

*: Model 2-4 adjusted for continuous job demand/job control, other two domains of stress and corresponding covariates mentioned above.